

CLAIMS

1. An electronic key system for a vehicle including a controller (14) mounted in the vehicle (100B) and a portable transceiver (12) carried by a user,

the vehicle (100B) containing a locking unit (64) for causing the vehicle (100B) to be locked so that use is not possible until a lock release command is received, and

wherein the controller (14) comprises:

means, made up of a plurality of switches provided in the vehicle (100B), for outputting a request signal (Sr) to the portable transceiver (12) in response to an ON operation of a predetermined switch (70), among a plurality of switches positioned in the vicinity of the user when the user boards the vehicle (100B);

means for detecting an acknowledgement signal (Sa) in response to the request signal (Sr) from the portable transceiver (12); and

means for, when the acknowledgement signal (Sa) is compared and judged to be a request from the normal user, outputting a lock release command to the locking unit (64).

2. The electronic key system for a vehicle according to claim 1, further comprising:

means for, if the vehicle (100B) is not started for a specified period of time, interrupting supply of power to at least circuits (44), inside the controller (14), that

perform communication; and

means, made up of a plurality of switches provided in the vehicle (100B), for carrying out supply of power to the circuits (44) in response to an ON operation of a
5 predetermined switch (70) among a plurality of switches positioned in the vicinity of the user when the user boards the vehicle (100B).

3. The electronic key system for a vehicle according to
10 claim 1, wherein the plurality of switches are operational switches used for starting the engine of the vehicle (100B), providing safety during travel, and stopping the vehicle (100B).

4. The electronic key system for a vehicle according to
15 claim 1, wherein a switch for detecting that the user has boarded the vehicle (100B) is included as one of the plurality of switches.

5. An electronic key system for a vehicle including a
20 controller (14) mounted in the vehicle (100B) and a portable transmitter (12) carried by a user,

the vehicle (100B) containing a locking unit (64) for causing the vehicle (100B) to be locked so that the vehicle
25 (100B) cannot be used until a lock release command is received,

the portable transmitter (12) containing means for

outputting a request signal (Sq) to the controller (14) in response to operation input by the user, and

wherein the controller (14) comprises:

means, made up of a plurality of switches provided in the vehicle (100B), for receiving a request signal (Sq) from the portable transmitter (12) in response to an ON operation of a predetermined switch (70), among a plurality of switches positioned in the vicinity of the user when the user boards the vehicle (100B); and

means for, when the request signal (Sq) is compared and judged to be a request from the normal user, outputting a lock release command to the locking unit (64).

6. The electronic key system for a vehicle according to claim 5, further comprising:

means for, if the vehicle (100B) is not started for a specified period of time, interrupting supply of power to at least circuits (44), inside the controller (14), that perform communication; and

means, made up of a plurality of switches provided in the vehicle (100B), for carrying out supply of power to the circuits (44) in response to an ON operation of a predetermined switch (70) among a plurality of switches positioned in the vicinity of the user when the user boards the vehicle (100B).

7. The electronic key system for a vehicle according to

claim 5, further comprising:

means for, if the vehicle (100B) is not started for a specified period of time, intermittently supplying power to at least circuits (44), inside the controller (14), that perform communication; and

means, made up of a plurality of switches provided in the vehicle (100B), for carrying out normal supply of power to the circuits (44) in response to ON operation of a predetermined switch (70) among a plurality of switches positioned in the vicinity of the user when the user boards the vehicle (100B).

8. The electronic key system for a vehicle according to claim 5, wherein the plurality of switches are operational switches used for starting the engine of the vehicle (100B), providing safety during travel, and stopping the vehicle (100B).

9. The electronic key system for a vehicle according to claim 5, wherein a switch for detecting that the user has boarded the vehicle (100B) is included as one of the plurality of switches.